

We claim:

1. A medical device coated with a therapeutically effective amount of at least one type of antibody which reacts with an endothelial cell antigen and at least one layer of a matrix, wherein the matrix comprises a fullerene ranging from about C60 to about C100.
2. The medical device of claim 1, wherein the antibody is tethered covalently by a linker molecule to the last layer of the matrix coating the medical device.
3. The medical device of claim 2, wherein the fullerene is C60O.
4. The medical device of claim 1, wherein the antibody is a monoclonal antibody.
5. The medical device of claim 1, wherein the medical device is a stent.
6. The medical device of claim 1, wherein the medical device is a synthetic graft.
7. The medical device of claim 1, wherein the endothelial cell is a human cell.
8. The medical device of claim 4, wherein the monoclonal antibody reacts with endothelial cell surface antigen CD34.
9. The medical device of claim 4 or 8, wherein the monoclonal antibody comprises Fab or F(ab')<sub>2</sub> fragments.

10. A medical device coated with a therapeutically effective amount of at least one type of antibody which reacts with an endothelial cell antigen and at least one layer of a matrix, wherein the matrix comprises polyurethane, segmented polyurethane-urea/heparin, poly-L-lactic acid, cellulose ester, polyethylene glycol, collagen, laminin, heparin, fibrin, cellulose or carbon.
11. The medical device of claim 10, wherein the antibody is tethered covalently by a linker molecule to the last layer of the matrix coating the medical device.
12. The medical device of claim 10, wherein the antibody is a monoclonal antibody.
13. The medical device of claim 10, wherein the medical device is a stent.
14. The medical device of claim 10, wherein the medical device is a synthetic graft.
15. The medical device of claim 10, wherein the endothelial cell is a human cell.
16. The medical device of claim 12, wherein the monoclonal antibody reacts with endothelial cell surface antigen, CD34.
17. The medical device of claim 12 or 16, wherein the monoclonal antibody comprises Fab or F(ab')<sub>2</sub> fragments.

18. A composition for coating to a medical device comprising a matrix and a therapeutically effective amount of at least one type of antibody that reacts with an endothelial cell antigen.
19. The composition of claim 18, wherein the matrix comprises polyurethane, segmented polyurethane-urea/heparin, poly-L-lactic acid, cellulose ester, polyethylene glycol, collagen, laminin, heparin, fibrin, cellulose or carbon.
20. The composition of claim 18, wherein the matrix comprises a fullerene ranging from about C60 to about C100.
21. The composition of claim 19 or 20, wherein the antibody is a monoclonal antibody.
22. The composition of claim 21, wherein the endothelial cell is a human cell.
23. The composition of claim 21, wherein the monoclonal antibody reacts with endothelial cell surface antigen, CD34.
24. The composition of claim 22, wherein the monoclonal antibody comprises Fab or F(ab')<sub>2</sub> fragments.
25. A method for coating a medical device comprising the steps of:

- (a) coating a medical device with at least one layer of a matrix comprising polyurethane, segmented polyurethane-urea/heparin, poly-L-lactic acid, cellulose ester, polyethylene glycol, collagen, laminin, heparin, fibrin, cellulose, fullerene or carbon; and
- (b) adding a therapeutically effective amount of at least one type of antibody which reacts with an endothelial cell antigen to the matrix coating the medical device.

26. The method of claim 25, wherein the antibody is noncovalently coated on the last layer of the matrix coating the medical device.

27. The method of claim 25, wherein the antibody is tethered covalently by a linker molecule to the last layer of the matrix coating the medical device.

28. The method of claim 25, wherein the fullerene is C60O.

29. A method of treating mammals for atherosclerosis comprising insertion of a medical device into an artery wherein the medical device is coated with a therapeutically effective amount of at least one type of antibody which reacts with an endothelial cell antigen and a matrix comprising a fullerene ranging from about C60 to C100.

30. The method of treatment of claim 29, wherein the antibody is a monoclonal antibody.

31. The method of treatment of claim 29, wherein the atherosclerosis is coronary artery atherosclerosis.

32. The method of treatment of claim 30, wherein the monoclonal antibody comprises Fab or F(ab')<sub>2</sub> fragments.
33. A method for treating mammals for atherosclerosis comprising insertion into an artery of a medical device, wherein the medical device is coated with at least one layer of a matrix comprising polyurethane, segmented polyurethane-urea/heparin, poly-L-lactic acid, cellulose ester, polyethylene glycol, collagen, laminin, heparin, fibrin, cellulose or carbon and a therapeutically effective amount of at least one type of antibody which reacts with an endothelial cell antigen.
34. The method of treatment of claim 33, wherein the antibody is a monoclonal antibody.
35. The method of treatment of claim 34, wherein the monoclonal antibody comprises Fab or F(ab')<sub>2</sub> fragments.
36. A method for treating mammals for obstruction of a vessel comprising insertion into a vessel of a medical device coated with at least one layer of a matrix comprising polyurethane, segmented polyurethane-urea/heparin, poly-L-lactic acid, cellulose ester, polyethylene glycol, collagen, laminin, heparin, fibrin, cellulose or carbon and a therapeutically effective amount of at least one type of antibody which reacts with an endothelial cell antigen.

37. The method of treatment of claim 36, wherein the antibody is a monoclonal antibody.
38. A method for treating mammals for obstruction of a vessel comprising insertion into a vessel of a medical device coated with at least one layer of a matrix comprising a fullerene ranging from about C60 to C100 and a therapeutically effective amount of at least one type of antibody which reacts with an endothelial cell antigen.
39. The method of treatment of claim 36 or 38, wherein the vessel is an artery.
40. The method of treatment of claim 36 or 38, wherein the vessel is a vein.
41. A medical device coated with at least one layer of a matrix comprising a fullerene ranging from about C60 to about C100.
42. The medical device of claim 41, wherein the first layer of the matrix is noncovalently attached to the medical device.
43. The medical device of claim 41, wherein the first layer of the matrix is covalently attached to the medical device.
44. The medical device of claim 43, wherein the matrix is C60O.

45. The medical device of claim 41, wherein the medical device is a stent.
46. The medical device of claim 41, wherein the medical device is a synthetic graft.
47. A medical device coated with a matrix consisting of a fullerene arranged as a nanotube.
48. The medical device of claim 47, wherein the matrix is noncovalently attached to the medical device.
49. The medical device of claim 47, wherein the matrix is covalently attached to the medical device.
50. The medical device of claim 47, wherein the medical device is a stent.
51. The medical device of claim 47, wherein the medical device is a synthetic graft.